JOURNAL OF
THE SOCIETY OF DYERS AND COLOURISTS

Volume 109 1993 Index

Subject index

Abstracts, analysis and testing 87, 127, 171, 226, 272, 343, 376, 414
ancillary processes 87, 125, 169, 224, 270, 307, 340, 375, 413
chemicals 45, 124, 167, 223, 268, 305, 375
dyeing – theory and practice 45, 86, 124, 167, 223, 268, 305, 339, 375
dyes and pigments 44, 123, 166, 222, 267, 304, 338
fibres and polymers 88, 128, 172, 227, 344, 414
health and safety 124, 168, 224, 269, 340, 375
miscellaneous 88, 128, 172, 227, 415
non-textile coloration 88, 172, 415
physico-chemical aspects of colour 88, 127, 171, 226, 272, 344, 376, 414
plant, management and services 87, 126, 170, 226, 271, 342, 376, 414
printing – theory and practice 86, 125, 168, 270, 307, 340, 375, 413
Acid dyes, milling, and the low-temperature dyeing of wool 15
Acrylic, dyeing, retarding action of polyacrylamide in 330
fibres, thermal memory of 76
yarn, simultaneous continuous dyeing and bulking of 369
Activated charcoal, for treatment of coloured effluent 97
Additive mixing and synthetic reflectance curves 323
Aggregation of disperse dyes 120
Air, controlling the amount of in steamers 28
Alkaline dyeing system for polyester 350
Alumina colorants for ceramics 102
Amines, aliphatic for silk degumming 256
Ammonia, liquid, treated wool, dyeing properties of 393
Application of aziridinyl disperse dyes 78
Assessment, environmental 140
Automotive fabrics, finishing techniques for 388
Aziridinyl disperse dyes, synthesis and application of 78
Azomethine dye, complex with Mn(II) 199

Babcock Textilmaschinen GmbH, display at ATME-1 49
Back-up seals, dry-running 52
BASF chairman speaks of slow growth for industry 2
Beacon Controls, machine orders from 50, 131, 310
BESO volunteer work 312
Bleaching, crease-free 174
wool with sodium bisulphite in the presence of sodium lauryl sulphate 301
Book review, Polyester: 50 years of achievement 255
The rainbow makers – the origins of the synthetic dyestuffs industry in Western Europe 412
Box and Behnken response surface design 256
Bradford metal works, American licence 49
BS 5750 awarded to the RGS group of companies 49
BS 7750 and environmental management 278
Bulking and simultaneous continuous dyeing of acrylic yarn 369
Bulmer & Sons chosen as technology transfer partner for Lesotho firm 276
Bunte salt terminated polyethers as pigment binders 106
Business news 2, 49, 90, 130, 231, 275, 310, 346, 377
Business woman of the year 173

Cadmium colorants for ceramics 102
Carcinogens, exposure protection 132
Carpet, batchwise piece dyeing of 133
dyeing 92, 133
Cationic agents for improving dyeability of cellulose fibres 153, 365
dyes, and acrylic dyeing 330
Cellulosic fibres, controlled coloration of with reactive dyes 284
dyeing processes, use of fibre-reactive systems for 357
improving dyeability with cationic agents 153, 365
Ceramic colorants 101
Cheese dyeing of yarn 233
Chemical information and packing regulations 310
labelling, guide to CHIP regulations for 378
Chemometric strategy for design of high fastness dyes for silk 405
China, volunteer work in 312
Chrome dyeing of wool, low 238
species, effect on wool keratin 193
CI Acid Orange 7, kinetics of biacetyl sensitised photo-oxidation 116
CI Acid Red 1, dyeing treated wool with 296
CI Solvent Brown 1, crystal data for 373
Coagulation, for treatment of coloured effluent 97
Coarse ink-jet printing 148
Colorants for ceramics 101
Colorgen name change 231
profits 130
Colortec machine for dyeing 274
Colour coordinate assessment of dye characteristics 402
fastness test publication 231
getting rid of 273
matching, carpets 92
– computer 246
– on-screen 247
removal for dyehouse waste waters, review of technology available 97
– with peroxy compounds 32
Colouring matters 2, 49, 89, 129, 173, 230, 274, 309, 346, 377
Colourways, the pyjama game 392
red is the colour 311
Comment, getting rid of colour 273
more unlevel playing fields? 229
the world's our oyster 1
Compatibility matrix for reactive dyes 284
Computers in rotary-screen printing 319
Cone dyeing of yarn 233
Conference, Asia and world textiles 91
fibre science 230
Index 91
pigment 91
RSC annual congress 91
Conferences 91, 230
Consultancy, Bradford Metal Works 377
White Knights 347
Continuous dyeing and short runs 142
– and simultaneous bulking of acrylic yarn 369
stream ink-jet printing 147
Control of hydrogen peroxide dosing 72
Controlled coloration in the dyeing of cellulosic fibres with reactive dyes 284
substances, new 91
COSHH, compliance with 310
Cotton bleaching, energy use in 32

dyeing of denim yarn with indigo 251
retardation of uptake of vat dyes on by phosphonates 336
Course, environmental 132
Crosslinking systems for cellulosic fibre dyeing 357
Crusher for coarse, caked material 346
Crystal data for CI Solvent Brown 1 373
Curing of coatings by radiation 179
Czechoslovakia, volunteer work in 312

Defects in rotary-screen printed fabric 353
Degumming silk with aliphatic amines 256
Design of carpets 92
Desizing 240
Development agencies, call to end textile 'double-think' 90
Differential solubility technique 76
Direct dyes, interaction with polyepichlorohydrin–amine polymers 365
Disperse dyes, aggregation 120
– letter 220
aziridinyl, synthesis and application of 78
binary mixtures on polyester 402
dyeing polyester with in alkaline solution 350
hetarylazo derivatives from dichloro-2-aminobenzothiazoles 397
improved compatibility of mixtures 25
Dosing of active chemicals, water soluble windows for 174
Drawing inks, colorants for 190
Drop-on-demand ink jet printing 148
Drums, foil lined 129
Drying packages 236
Dye making plant opens 3
oxidation with peroxy compounds 32
Dyebath composition, effect on fixing and bulking of acrylic yarn 369
Dyeing properties of Mn(II)-2-(2-pyridylmethyleneamino)phenol complex 199
Dyes and microscopy 54

Education and training 348
Effluent, adsorbent process for colour removal 132
biological treatment of 139
chemical treatment of 138
coloured 97
dyehouse, recycling of 219
reduction of chrome levels in 238
treatment with peroxy compounds 32
Electrical checks 131
Electrolysis, for treatment of coloured effluent 97
Environmental assessment 140
audit 278
considerations and BS 7750 278
– and business 138
– and mordants 8
– and natural colorants 5
– and textile processing 32
– and textile wet processing 10
– polluter pays principle 51
news 51, 132, 173, 276, 377
Enzyme, role of in wool shrinkage 210
Epoxides, silk finishing with 159
European textile standards 232

Fabricolor licensing agreement with Czechoslovakia 2
Fastness of carpets 92
Fault detection, high-speed 274
Felt-tip pen inks, colorants for 191
Fibre modification and cellulosic fibre dyeing 359
reactive systems for dyeing cellulosic fibres 357
usage in carpets 92
Fibres, reactive 362
Fineliner pen inks, colorants for 190
Finishing techniques for automotive fabrics 388
polyester/cotton 379
synthetic fibre fabrics 385
woollen and worsted fabrics 382
Fire resistance in viscose/silicic acid hybrid fibres, mechanism of 261
Flame retardancy, and smoke generation from textile upholstery 71
Flocculation, for treatment of coloured effluent 97
in waste water recycling 280
Flotation in waste water recycling 280
Fluorescent inks, colorants for 192
species in wool keratin 163
Fluorinated polymers, new distributor for 173
Fluorocarbon resin-treated polyester, effect of washing and heat treatment on 292
Forum of retail and garment enterprises 231
FTIR study of photodegradation and thermal degradation of wool 21
Fume scrubbing 230

Gold colorants for ceramics 102
Gravitator for separation of oil and water 309

Hand dyeing of hanks 175
Handling loads, safer 378
Hank dyeing 176
Health and safety 3, 51, 90, 131, 174, 277, 310, 378
consultant, choosing a 52
Heat treatment, effect of on surface characteristics of fluorocarbon resin-treated polyester 292
High fastness dyes for silk, design of 405
Hue angle measurement, assessment of compatibility of disperse dye mixtures 25
Hydrogen peroxide dosing, monitoring and control of 72
Hygral expansion of worsted fabrics, effect of dyeing on 111

Ilkovic's equation in the polarographic study of disperse dye aggregation 120
Indigo dyeing of cotton denim yarn, correlating theory and practice 251
Ink colorants for writing and drawing environmentally friendly 52
formulations for textile jet printing 149
Ink-jet printing for textiles 147

Inorganic adsorbers, for treatment of coloured effluent 97
Instrumentation in yarn dyeing 235

Jet printing and reactive dyes 147
Stork Trucolor machine149

Keratin, effect of chromium species on 193
photobleachable fluorescent species in wool 163
Kinetics of biacetyl-sensitised photo-oxidation of CI Acid Orange 7 116
Klotz's method in the spectrophotometric study of disperse dye aggregation 120

Laser irradiation of wool 202
Lead colorants for ceramics 102
Levelling agents, and improved compatibility of disperse dye mixtures 25
Light fastness of aziridinyl disperse dyes 78
standards, 1–8 range 411
standards, evaluatory trials 411
Low temperature dyeing of wool 15
wool/nylon blends 15

Man-made fibre, cuts in capacity 173
Manganese(II) complexes with 2-(2-pyridylmethyleneamino)phenol, effect on dyeing properties 199
Marker pen inks, colorants for 191
McLaren, Keith – colourist and communicator 57
Meetings 347
Membrane technology, for treatment of coloured effluent 97
Merchant of Prato 183
Merger between Paintmakers Association and British Printing Inks Manufacturers 51
Merino wool, fluorescence of 163
Metal-complex dyes, for low chrome dyeing 238
and the low temperature dyeing of wool 15
Microscope, dyeing for the 54
Moisture meter, hand held 310
Monitoring of hydrogen peroxide concentrations 72
sodium hydroxide concentrations 72
Mordants, greener 8
More unlevel playing fields? 229
Multi-bath dyeing machine exhibited at ATME-1 89
laboratory dyeing machines 49

Natural colorants 5
and R&D 13
revival of in Asia 13
New technology 2, 89, 129, 174, 230, 274, 309, 346
Non-textile coloration 411
Nylon, current uses and future of 315
dyeing with Mn(II)-2-(2-pyridylmethyleneamino)phenol complex 199
history of 314
microfibres 315
recycling 90

Obituary John E H Bennett 221
John M Goodall 221
Gilbert Mills 412
Optical measurements meeting 348
Oxides, mixed transition metal, colorants for ceramics 103
single organic, colorants for ceramics 102
Ozone, for treatment of coloured effluent 97

Package centres for yarn dyeing 234
drying 236
dyeing, cop 178
Pad–batch application of reactive dyes and radio-frequency-assisted fixation 65
Paint formulation software 2
Peroxy compounds, effluent treatment with 32
Phosphonates and the retardation of the uptake of vat dyes on cotton 336
Photobleachable fluorescent species in wool keratin 163
Photobleaching of wool 202
Photodegradation of wool by sunlight 21
Photometer for measuring water quality 309
Photo-oxidation of CI Acid Orange 7, biacetyl-sensitised, kinetics of 116
Photoyellowing of wool 202
Pigment binders, *S*-thiosulphato terminated polyethers 106
Pigments and microscopy 54
Plasma treatment, effect of on wool shrinkage 334
Plastics operations sales by BASF and ICI 90
Polarographic study of disperse dye aggregation 120
Polyacrylamide, retarding action of in acrylic dyeing 330
Polyepichlorohydrin-amine polymers for cotton pretreatment 153
interaction with direct dyes 365
Polyester, an alkaline dyeing system for 350
dyeing using ultrasound 263
dyeing with hetarylazo derivatives from dichloro-2-aminobenzothiazoles 397
fluorocarbon resin treated, effect of washing and heat treatment on 292
Polyester/cotton, commercial approach to dyeing and finishing 379
Pressure gauge, new 309
Pretreatment of cotton with polyepichlorohydrin–amine polymers 153
and size removal from cotton and blends 240
Printing, rotary-screen, current trends and future of 318
rotary-screen, defects in 353
Profile, Veronica Bell 146
Lado Benisek 243
Simon Browning 356
Barry Hazel 283
David Lewis 185
Alan Liddiard 391
John Scotney 317
Dolbey Witz 96
Publications 231, 377
Pump, peristaltic, for print waste reduction 275
for remote locations 346
2-(2-Pyridylmethyleneamino)phenol, complex with manganese(II) 199

Radcure technology 179
Radiation curing 179
Radio-frequency-assisted fixation of reactive dyes 65
Reactive dyes and the controlled coloration of cellulosic fibres 284
fixation by radio-frequency 65
improving dyeability of cellulosic fibres with 153
jet printing with 147
multifunctional 357
vinylsulphone, interaction with cellulosic fabrics 213
Reactive fibres 362
Recruitment of specialist inspectors, brochure 91
Recycling waste water by flocculation/flotation 280
Refurbished equipment from Glen Creston 49
Regulations, guidance on work equipment 52
Respirator, new full face mask 89
Respiratory protective equipment user lists 3
Retardation of acrylic dyeing by polyacrylamide 330
Return to nature, a 4
Right-first-time production 284
Risk assessment symposium 347
step-by-step guide 174
Robotised handling in the yarn dyehouse 237
Rollerball inks, colorants for 190
Rolling machine, synchronised 89
Rotary-screen printing, current trends and future of 318
defects in 353
Run lengths, shorter, in rotary-screen printing

S. fradiae, enzyme derived from 210
Safety shield, valve 90
Shade variation in the low temperature dyeing of wool 15
Short runs and continuous dyeing 142
Shrinkage of wool, effect of plasma treatment on 334
enzyme 210
Silica colorants for ceramics 102
Silk degumming with aliphatic amines 256
dyes, chemometric approach to design of 405
finishing with epoxides 159
Size removal 240
Sludge mixer, new 309
Society of Dyers and Colourists, AGM report 187
Annual Dinner report 245
ASDC examination papers (1992) 46
Examinations Board report (1992) 37
Presentation ceremony report 186
Sodium bisulphite for bleaching wool 301
Sodium lauryl sulphate as an additive in wool bleaching 301
Software for cotton circular-knitted fabric producers 120
Spectrometer, new on-line 89
Spectrophotometer, hand-held 2
Spectrophotometric study of disperse dye aggregation 120
Stainless steel yarn dyeing machinery 233
Steamers, controlling the amount of air in 28
Storage, new store for hazardous chemicals 174
Substrate pretreatments for textile jet printing 149
Subtractive colour mixing, synthetic reflectance curves from 246
Sunlight and wool degradation 21
Superabsorbent polymers, new plant for 173
Surface characteristics of liquid ammonia treated wool 393
diffusion barrier, modification of in wool 296
Surfactants, handbook of industrial 377
Synthesis of aziridinyl disperse dyes 78
Synthetic fibre fabrics, finishing techniques for 385
reflectance curves by additive colour mixing 323
– by subtractive colour mixing 246

Tactel, 315
Teflon lining for complex shapes 129
Tests for chemicals, adoption of ACOP 277
Textile Institute, new office in India 377
Textile standards, European 232
Thermal degradation of wool 21
memory of acrylic fibres 76
Thermometer, pocket 230
Tin colorants for ceramics 102
Titania colorants for ceramics 103
Training scheme for European textile companies 348
school in South Staffordshire 349
Triethylamine, for degumming silk 256
Tussah silk, finishing 159

Ultrasound in dyeing polyester fibres 263
UV irradiation of wool 202

Vat dyes, and fixing by steamer 28
retardation of uptake on cotton by phosphonates 336
Video, fire prevention 132
lift truck safety 90
Vinylsulphone dyes, interaction with cellulosic fabrics
Viscose/silicic acid hybrid fibres, mechanism of fire resistance in 261
Volunteer work 312

Wash fastness of aziridinyl disperse dyes 78
in the low temperature dyeing of wool 15
Washing, effect of on surface characteristics of fluorocarbon resin-treated polyester 292
Waste minimisation, funding by HMIP 377
Waste water recycling by flocculation/flotation 280
treatment 97
Water monitoring, booklet of techniques for 276
Water-soluble films 230
Waterlands campaign 231
Wet fastness, see wash fastness
Women's and girls' outerwear in France, sales 50
Wool bleaching with sodium bisulphite in the presence of sodium lauryl sulphate 301
dyeing properties and surface characteristics of liquid ammonia treated 393
dyeing with Mn(II)-2-(2-pyridyl-methyleneamino)phenol complex 199
fabrics, finishing techniques for 382
keratin, effect of chromium species on 193
– photobleachable fluorescent species in 163
modification of surface diffusion barrier of 296
shrinkage, effect of plasma treatment on 334
enzyme 210
World's our oyster, the 1
Worsted fabrics, effect of hygral expansion on dyeing of 111
finishing techniques for 382
Writing inks, colorants for 188

Yarn dyeing machinery, history of 175, 233

Zeneca Colours, formation of 90
Resins, formation of 49
Zinc colorants for ceramics 103
Zirconia oxygen analyser, measuring the amount of air in steamers 28
Zirconium based colorants for ceramics 103, 104

Author index

Ali S I 13
Apperley T W J 411
Aston S O 147

Baird M 111
Baldwinson T M 220
Bell B T 101
Benisek L 71
Bracegirdle B 54
Bradbury M J 284
Broadhurst R 412
Burkinshaw S M 78
Burtonshaw D 411
Byrne D M 1, 412

Carlough M S 65
Caro M 301
Carpignano R 405
Carr C M 21, 111
Castle M R 4
Cayuela D 301
Cegarra J 210, 301
Cerniani A 405
Chabert B 213
Chen K M 153, 365
Cockburn E 179
Collins S 202
Collishaw P S 284
Cooper P 97
Cormack E 353
Cornell H J 296

Dalby G 8
Davidson R S 202
Dhuri S S 25, 402
Dodd K J 111
Doran A 15

El-Nahas H M 336
Etters J N 251

Fisher A 385

Gacén J 76, 301
Gaunt J F 175, 233
Gauthier R 213
Glover B 5, 273
de Giorgi M R 405

van de Graaf B 116
Grabaric B S 199
Grabaric Z 199
Guha S B 120
Gulrajani M L 256
Guo L N 213

Hallas G 78
Hardalov I 369
Hawkyard C J 246, 323
Heidari S 261
Hickman W S 32
Hinks D 106
Holman R 179
Holweg R B M 28, 72
Houlton S 238, 312
Hyde R F 142

Imafuku H 350
Isarin J C 28

Jacques L 315
Jacquet A 213

Kawamura H 292
Kool R J M 318
Koprivanac N 199

Lee M 334, 393
Lewis D M 21, 106, 193, 357
Li H 292
Lomas M 10

Mackinnon M 221
Maillo J 76
Mairal A K 120
Masselink H 147
Mathur M 263, 330
McDonald R 57
Melhuish W H 163
Mesinovic A 199
Mikhaylova J 369
Milner A 241
Mizushima H 292
Moore F 232
Moorhouse D 255
Morton N 183

Neevel J G 116
Negri A P 296
Newton E J 138
Nousiainen P 261

Parac-Osterman D 199
Parén A 261
Park J 92, 133, 229
Parker W 382
Pashley J 379
Pearson D J 388
Pearson G P 314
Peereboom M 116
Peng X 159
Perkins W S 65
Peters A T 397
Petit-Ramel M 213
Pfingstag G 188
Phillips D A S 284
Pierce, J H 5
Prieto R 210
Provost J R 147

Ravensbergen D W 72
Riad Y 336
Riva A 210
Rivett D E 296
Rowling E 221

Saligram A N 263
Sato Y 292
Sato Y 393
Savarino P 405
Shukla S R 25, 263, 330, 402
Sinha S 256
Smith C 278
Smith G J 163
Smith S S 411
Sun J 159

Taebi A 397
Takekoshi S 292
Tokino S 334

Uchiyama H 334
Ueda M 292

Wakida T 292, 334, 393
Wang J 159
Whitaker A 373
Wragg P J 219, 280
Wu T S 153, 365

Yan G 193
Yanai Y 393
Yang S S 397

Editorial

Editor Paul Dinsdale

Assistant Editor Sarah Houlton

Production Carol Davies

Abstractors
N S Batty
G Hallas
B Kramrisch
W A Straw

Journal Committee
P A Turner *Chairman*
R M Brown
J F Dawson
C Duckworth
A Johnson
A T Leaver
G P Pearson
D T Preston
A C Pullan
S M Smith
K F Strong
A C Welham